

### **Amendments to the Claims**

Claims 1-39 remain in this application.

Claims 8-17 and 25-39 have been withdrawn.

Claims 1-7 and 18-24 are rejected.

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims**

Claim 1 (currently amended): A method of analyzing ~~genetic~~ expression of a gene comprising the steps of:

liquefying a complex biological construct comprising genetic molecules to form a solution;

transferring said solution to a microarray; and

determining ~~gene~~ expression of said gene.

Claim 2 (currently amended): The method of Claim 1 wherein the complex biological construct comprising genetic molecules is a gross anatomical structure of an animal comprising more than one type of tissue.

Claim 3 (currently amended): A method of analyzing ~~genetic~~ expression of a gene comprising the steps of:

placing a complex biological construct comprising genetic molecules into a chamber;

liquefying said complex biological construct comprising genetic molecules in said chamber wherein a solution is formed;  
removing said solution from said chamber; ~~and~~  
purifying said solution and extracting and isolating genetic molecules; and  
determining expression of said gene.

Claim 4 (currently amended): The method of Claim 3 further comprising the step of inserting a component into said chamber wherein said component ruptures ~~the cells~~ present within of said complex biological ~~component~~ construct.

Claim 5 (original): The method of Claim 3 further comprising the step of preparing gene expression analysis.

Claim 6 (currently amended): The method of Claim [4] 5 wherein said gene expression analysis includes an analysis of gene function.

Claim 7 (original): The method of Claim 3 wherein genetic molecules are placed in a microarray for matching known and unknown genetic molecules.

Claim 8 (withdrawn): An apparatus for performing the method of Claim 1, comprising:  
a component;  
a chamber; and

a means for applying force to said chamber wherein said component liquefies the complex biological construct and genetic molecules are release intact.

Claim 9 (withdrawn): A method of analyzing genetic expression comprising the steps of:

pulverizing a complex biological construct;  
transferring said solution to a microarray; and  
determining gene expression.

Claim 10 (withdrawn): The method of Claim 9 wherein the complex biological construct is a gross anatomical structure of an animal comprising more than one type of tissue.

Claim 11 (withdrawn): A method of analyzing genetic expression comprising the steps of:

placing a complex biological construct into a chamber;  
pulverizing said complex biological construct in said chamber wherein a solution is formed;  
removing said solution from said chamber; and  
purifying said solution and extracting and isolating genetic molecules.

Claim 12 (withdrawn): The method of Claim 11 further comprising the step of inserting a component into said chamber wherein said component ruptures the cells of said complex biological component.

Claim 13 (withdrawn): The method of Claim 11 further comprising the step of preparing gene expression analysis.

Claim 14 (withdrawn): The method of Claim 13 wherein said gene expression analysis includes an analysis of gene function.

Claim 15 (withdrawn): The method of Claim 11 wherein genetic molecules are placed in a microarray for matching known and unknown genetic molecules.

Claim 16 (withdrawn): An apparatus for performing the method of Claim 1 comprising:  
a component;  
a chamber; and  
a means for applying force to said chamber wherein said component pulverizes the complex biological construct and genetic molecules are release intact.

Claim 17 (withdrawn): An apparatus for performing the method of Claim 9 comprising:  
a component;  
a chamber; and  
a means for applying force to said chamber wherein said component pulverizes the complex biological construct and genetic molecules are release intact.

Claim 18 (currently amended): A method for extraction and isolation of genetic molecules for use in the analysis of ~~genetic~~ expression of a gene comprising the steps of

liquefying a complex biological construct comprising genetic molecules ~~into~~ to form a solution having complete and uncontaminated genetic molecules;  
transferring said solution to a microarray; and  
determining ~~gene~~ expression of said gene.

Claim 19 (currently amended): The method of Claim 18 wherein the complex biological construct comprising genetic molecules is a gross anatomical structure of an animal comprising more than one type of tissue.

Claim 20 (currently amended): A method for extraction and isolation of genetic molecules from animal tissue for use in ~~the~~ analyzing ~~genetic~~ expression of a gene comprising the steps of:

placing a complex biological construct comprising genetic molecules into a chamber;

liquefying said complex biological construct comprising genetic molecules in said chamber wherein a solution is formed;

removing said solution from said chamber; and

purifying said solution to extract and isolate genetic molecules.

Claim 21 (currently amended): The method of Claim 20 further comprising the step of inserting a component into said chamber wherein said component ruptures ~~the~~ cells present within ~~of~~ said complex biological ~~component~~ construct.

Claim 22 (original): The method of Claim 20 further comprising the step of preparing gene expression analysis.

Claim 23 (currently amended): The method of Claim ~~20~~ 22 wherein said gene expression analysis includes an analysis of gene function.

Claim 24 (original): The method of Claim 20 wherein genetic molecules are placed in a microarray for matching known and unknown genetic molecules.

Claim 25 (withdrawn): A method of extracting genetic molecules from an animal comprising the steps of:

- isolating a complex biological construct;
- freezing said construct to prevent nucleic acid degradation;
- inserting said construct into a chamber fitted with a component wherein said component ruptures the cells of said construct to release genetic molecules and form a solution;
- applying force to said chamber;
- removing said solution from said chamber wherein said solution contains pure and uncontaminated genetic molecules; and,
- freezing said solution for subsequent gene expression analysis.

Claim 26 (withdrawn): A method of isolating RNA from an animal comprising the steps of:

- isolating a complex biological construct;

freezing said complex biological construct to prevent degradation of the RNA;  
liquefying said complex biological construct into a solution wherein RNA remains intact; and  
freezing said solution prior to purification for subsequent gene expression analysis.

Claim 27 (withdrawn): An apparatus for reducing a complex biological construct from an animal into solution containing genetic molecules comprising:

a component for rupturing the cells of the complex biological construct and forming a solution;

a chamber for holding said complex biological construct wherein chamber is designed to allow free movement of said component through chamber; and

a means for applying force to said chamber wherein the complex biological construct is liquefied with said component to release genetic molecules intact.

Claim 28 (withdrawn): An apparatus for performing the method of Claim 18, comprising:

a component;

a chamber; and

a means for applying force to said chamber wherein said component liquefies the complex biological construct and genetic molecules are release intact.

Claim 29 (withdrawn): A method for extraction and isolation of genetic molecules for use in the analysis of genetic expression comprising the steps of

pulverizing a complex biological construct into solution having complete and uncontaminated genetic molecules;

transferring said solution to a microarray; and

determining gene expression.

Claim 30 (withdrawn): The method of Claim 29 wherein the complex biological construct is a gross anatomical structure of an animal comprising more than one type of tissue.

Claim 31 (withdrawn): A method for extraction and isolation of genetic molecules from animal tissue for use in the analysis of genetic expression comprising the steps of:

placing a complex biological construct into a chamber;

pulverizing said complex biological construct in said chamber wherein a solution is formed;

removing said solution from said chamber; and

purifying said solution to extract and isolate genetic molecules.

Claim 32 (withdrawn): The method of Claim 31 further comprising the step of inserting a component into said chamber wherein said component ruptures the cells of said complex biological component.

Claim 33 (withdrawn): The method of Claim 31 further comprising the step of preparing gene expression analysis.



Claim 34 (withdrawn): The method of Claim 31 wherein said gene expression analysis includes an analysis of gene function.

Claim 35 (withdrawn): The method of Claim 31 wherein genetic molecules are placed in a microarray for matching known and unknown genetic molecules.

Claim 36 (withdrawn): A method of extracting genetic molecules from an animal comprising the steps of:

- isolating a complex biological construct;
- freezing said construct to prevent nucleic acid degradation;
- inserting said construct into a chamber fitted with a component wherein said component ruptures the cells of said construct to release genetic molecules and form a solution;
- applying force to said chamber;
- removing said solution from said chamber wherein said solution contains pure and uncontaminated genetic molecules; and,
- freezing said solution for subsequent gene expression analysis.

Claim 37 (withdrawn): A method of isolating RNA from an animal comprising the steps of:

- isolating a complex biological construct;
- freezing said complex biological construct to prevent degradation of the RNA;
- pulverizing said complex biological construct into a solution wherein RNA remains intact; and

freezing said solution prior to purification for subsequent gene expression analysis.

Claim 38 (withdrawn): An apparatus for reducing a complex biological construct from an animal into solution containing genetic molecules comprising:

a component for rupturing the cells of the complex biological construct and forming a solution;

a chamber for holding said complex biological construct wherein chamber is designed to allow free movement of said component through chamber; and

a means for applying force to said chamber wherein the complex biological construct is liquefied with said component to release genetic molecules intact.

Claim 39 (withdrawn): An apparatus for performing the method of Claim 29, comprising:

a component;

a chamber; and

a means for applying force to said chamber wherein said component pulverizes the complex biological construct and genetic molecules are release intact.